

## Packet data transmission in code-division multiple access communication systems

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**Inventor:**  
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A system and method for the wireless transmission of data packets in a code division multiple access communication system wherein one of the code division multiple access channels (PRCH) is used in a time-shared fashion for the transmission of the data packets from several transmitting stations (MSy, MSz) to a receiving station (BS). A request is sent from a transmitting station (MSy) to the corresponding receiving station (BS) of the communication system indicating the destination address to which data packet(s) are to be routed. Then, registering the transmitting station (MSy) and assigning an unique virtual connection identifier (VCly) to it. Next, the transmitting station (MSy) is attached to the code division multiple access channel (PRCH) used for the transmission of data packets. Then, listening to the downlink of the code division multiple access channel (PRCH) used for the transmission of data packets until the corresponding receiving station (BS) broadcasts that it will be "idle" such that a random access to the code division multiple access channel (PRCH) used for the transmission of data packets is allowed in the next frame. Next, the transmission power of the transmitting station (MSy) is ramped up during the next frame until a certain power level is reached. The data packet(s) and the virtual connection identifier (VCly) are transmitted over the uplink of the code division multiple access channel (PRCH) used for the transmission of data packets to the receiving station (BS). The data packet(s) are routed to the destination address. Access to the code division multiple access channel (PRCH) used for the transmission of data packets is controlled by a multiple access protocol based on carrier sensing and collision detection (CSMA/CD)

Base station

